

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)
2. (Currently Amended) A method according to claim 3 [[1]], wherein the broadband signal is a quadrature amplitude modulated (QAM) cable television signal.
3. (Currently Amended) A method according to claim 1 comprising:
receiving a broadband signal at a receiver in accordance with a first modulation technique;
tuning the receiver to a channel within the broadband signal; and
modifying one or more operational parameters of the receiver to demodulate the channel in accordance with a second modulation technique to determine whether the channel is a data channel by, wherein modifying one or more operational parameters in the receiver comprises: adjusting a demodulator associated with the first modulation technique to demodulate the received channel in accordance with a second modulation technique[[;]], sweeping a carrier frequency through a loop bandwidth of the channel to until carrier frequency lock is achieved[[;]], and determining that the channel is an active data channel if carrier frequency lock is achieved.

4. (Original) A method according to claim 3, wherein determining that the channel is an active data channel comprises:

analyzing channel header information of the signal to identify a multimedia programming identifier, wherein the absence of such an identifier is indicative of a data channel.

5. (Original) A method according to claim 3, further comprising:
tuning the receiver to another channel if carrier lock is not achieved through the loop bandwidth of the channel; and

repeating the adjusting, sweeping, determining and tuning steps until carrier frequency lock is achieved within the loop bandwidth of one of the channels within the broadband spectrum identifying an active data channel within the broadband spectrum.

6. (Original) A method according to claim 5, further comprising:
modifying the demodulator to demodulate the identified channel in accordance with the first modulation technique.

7. (Original) A method according to claim 6, further comprising:
updating receiver operating information to denote the identified active data channel.

8. (Original) A method according to claim 3, wherein the second modulation technique is a quadrature phase shift-keying (QPSK) modulation technique.

9. (Original) A method according to claim 8, wherein adjusting the demodulator comprises:

setting a quadrature amplitude modulation (QAM) demodulator of the receiver to demodulate the channel using a quadrature phase shift-keying (QPSK) technique.

10. (Currently Amended) A method ~~according to claim 1, further~~ comprising:
receiving a broadband signal at a receiver in accordance with a first modulation technique;

tuning the receiver to a channel within the broadband signal;
modifying one or more operational parameters of the receiver to demodulate the channel in accordance with a second modulation technique to determine whether the channel is a data channel;

sweeping a carrier frequency through a loop bandwidth of the channel to until carrier frequency lock is achieved; and

determining that the channel is an active data channel if carrier frequency lock is achieved.

11. (Original) A method according to claim 10, wherein determining that the channel is an active data channel comprises:

analyzing channel header information of the signal to determine payload content.

12. (Original) A method according to claim 11, wherein analyzing channel header information comprises:

locating a programming identification (PID) field; and
determining whether the PID field contains a multimedia programming identifier to denote that the channel is a multimedia channel.

13. (Original) A method according to claim 12, further comprising:
identifying the channel as a data channel if the PID field does not contain a multimedia programming identifier.

14. (Currently Amended) A machine accessible storage medium comprising a plurality of executable instructions which, when executed by an accessing machine, implement a method according to claim [[1]] 3.

15. (Currently Amended) A machine accessible storage medium comprising a plurality of executable instructions which, when executed by an accessing machine, cause the machine to implement a channel detection agent to modify at least the demodulation technique of a broadband receiver to identify digital channels in a broadband signal by tuning a broadband receiver to a channel within the received broadband signal, the broadband signal modulated in accordance with a first modulation technique, and modifying one or more operational parameters of the receiver to demodulate the channel

in accordance with a second modulation technique to determine whether the channel is a data channel, [[and]] to analyze at least a subset of header information of identified digital channels to distinguish digital data channels from digital media channels, to sweep a carrier frequency through a loop bandwidth of the channel demodulated in accordance with the second modulation technique until carrier frequency lock is achieved, and to determine that the channel is an active data channel if carrier frequency lock is achieved.

16-17. (Canceled)

18. (Currently Amended) A machine accessible storage medium according to claim [[17]] 15, further comprising instructions to:

analyze channel header information of the demodulated signal to identify a multimedia programming identifier, wherein the absence of such an identifier is indicative of a data channel.

19. (Currently Amended) A machine accessible storage medium according to claim [[17]] 15, further comprising instructions to:

tune the receiver to another channel if carrier lock is not achieved through the loop bandwidth of the channel; and

repeat the, sweeping, determining and tuning until carrier frequency lock is achieved within the loop bandwidth of one of the channels within the broadband spectrum and an active data channel is identified.

20. (Original) A machine accessible storage medium according to claim 15, wherein the first modulation technique is a quadrature amplitude modulation (QAM) technique.

21. (Original) A machine accessible storage medium according to claim 15, wherein the instructions implementing the channel detection agent, when invoked, cause a quadrature amplitude modulation (QAM) receiver to demodulate a received signal in accordance with a quadrature phase shift-keying (QPSK) demodulation technique.

22. (Currently Amended) A computing device comprising:
a storage medium comprising a plurality of executable instructions; and
a control unit, coupled to the storage medium, to selectively execute at least a subset of the plurality of instructions to implement a data channel detection agent to modify at least a demodulation technique of an accessible broadband receiver to enable the agent to identify digital channels in a broadband signal, and to analyze at least a subset of header information of identified digital channels to distinguish digital data channels from digital media channels, wherein the data channel detection agent interacts with the broadband receiver to tune the broadband receiver to a channel within the received broadband signal, the broadband signal modulated in accordance with a first modulation technique, and to modify one or more operational parameters of the receiver to demodulate the channel in accordance with a second modulation technique to determine whether the channel is a digitally modulated channel, the data channel

detection agent further comprising instructions which, when issued to the receiver, cause the receiver to sweep a carrier frequency through a loop bandwidth of the channel demodulated in accordance with the second modulation technique until carrier frequency lock is achieved, wherein the channel detection agent determines that the channel is a digitally modulated channel if carrier frequency lock is achieved.

23-24. (Canceled)

25. (Currently Amended) A computing device according to claim [[24]] 22, wherein the channel detection agent analyzes channel header information of the demodulated signal to identify a multimedia programming identifier, wherein the absence of such an identifier is indicative of a data channel.

26. (Original) A computing device according to claim 25, wherein the channel detection agent tunes the receiver to another channel to identify a data channel if carrier lock is not achieved through the loop bandwidth of the channel.

27. (Original) A computing device according to claim 22, wherein the channel detection agent issues instructions to modify a quadrature amplitude modulation (QAM) receiver to demodulate a received signal in accordance with a quadrature phase shift-keying (QPSK) demodulation technique.

28. (Original) A computing device according to claim 22, wherein the computing device is a cable modem.

29. (New) A machine accessible storage medium comprising a plurality of executable instructions which, when executed by an accessing machine, implement a method according to claim 10.